Application No.: 10/099,781 Docket No.: 29137.029.00

Amendment dated March 8, 2005

Reply to Office Action December 5, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A chemical compound of Chemical Formula I:

Chemical Formula 1

wherein Rl through R24 are substituent groups, identical or different, and wherein not all of R1 through R24 are hydrogen.

- 2. (Previously Presented) The chemical compound of Claim 1, wherein one or more of R1-R24 are selected from the aryl group consisting of phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl, perylenyl coronenyl, and heteroaryl, which are either substituted or unsubstituted.
- 3. (Previously Presented) The chemical compound of Claim 2, wherein the aryl groups are further substituted with one or more phenyl, biphenyl, terphenyl, benzyl, naphthl, anthracenyl, tetracenyl, pentacenyl, perylenyl, coronenyl or heteroaryl, which are either substituted or unsubstituted.

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4. (Original) The chemical compound of Claim 1, wherein one or more of the R1-R24 are selected from the heteroaryl group consisting of thiophenyl, thiazolyl, oxazolyl, imidazolyl, and

pyrazinyl, either substituted or unsubstituted.

5. (Previously Presented) The chemical compound of Claim 1, wherein one or more of Rl-

R24 are selected from the group consisting of amines with at least one aryl substituent and aryl

including phenyl, biphenyl, terphenyl, benzyl, naphthyl, anthracenyl, tetracenyl, pentacenyl,

perylenyl, coronenyl and heteroaryl.

6. (Currently Amended) The chemical compound of Claim 1, wherein at least one of R1-

R24 is anthracenyle anthracenyl or heteroaryl.

7. (Original) The chemical compound of Claim 1, wherein the substituent groups Rl

through R24 can be substituted by one or more organic moieties satisfying General Formula I.

8. (Original) The chemical compound of Claim 1, wherein one or more of the R3, R7, R10,

R11, R14, R15, R18, and R22 are substituted with non-hydrogen substituent groups.

9. (Original) The chemical compound of Claim 1, wherein one or more pairs of R3 and R7;

R18 and R22; R10 and R15; and R11 and R14 are substituted with non-hydrogen substituent

groups.

10. (Original) The chemical compound of Claim 1, wherein the compound is selected from

the group consisting of Chemical Compounds 1-11, 100-137, 200-222, 300-308, and 400-413 as

shown below, and wherein "Br" in Chemical Compounds 1, 2 and 5-7 may be substituted with

another leaving group:

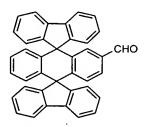
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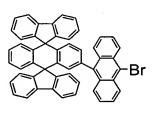
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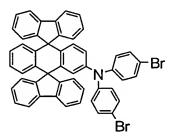
Chemical Compound 1



Chemical Compound 3



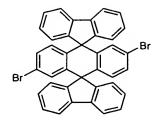
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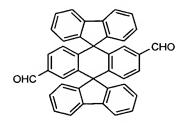
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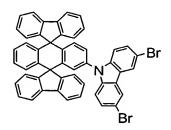
Chemical Compound 9



Chemical Compound 2



Chemical Compound 4

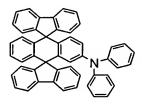


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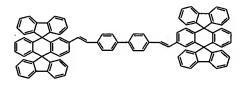
Chemical Compound 8

Chemical Compound 10

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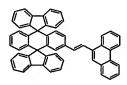
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Chemical Compound 100



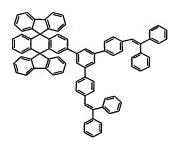
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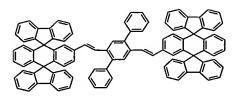
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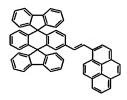
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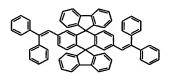
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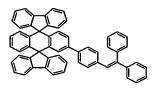
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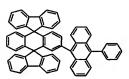
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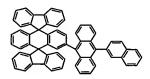
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Chemical Compound 107



Chemical Compound 109



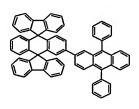
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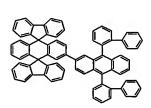
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Chemical Compound 114



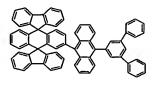
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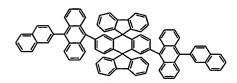
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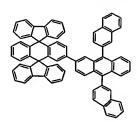
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Chemical Compound 113



Chemical Compound 115



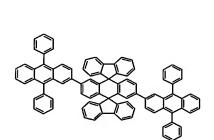
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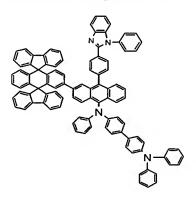
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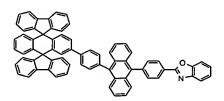
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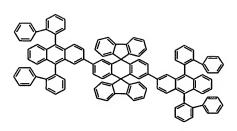
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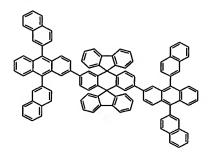
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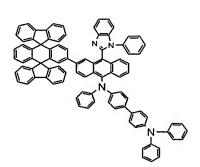
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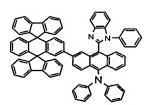
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Chemical Compound 123



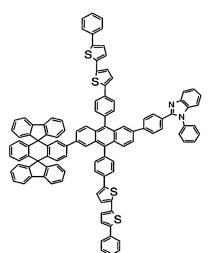
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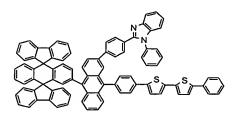
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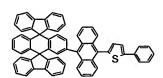
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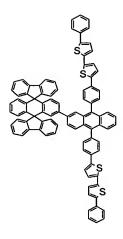
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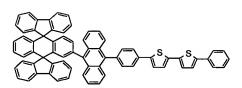
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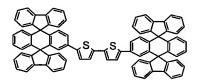


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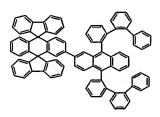
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Chemical Compound 133



Chemical Compound 135

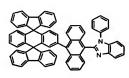
Docket No.: 29137.029.00



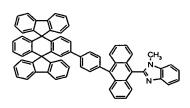
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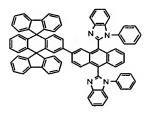
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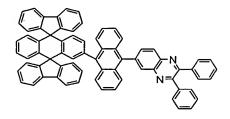
Chemical Compound 200



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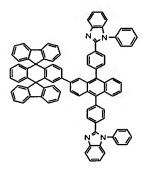
Chemical Compound 202



Chemical Compound 203

Chemical Compound 204

Chemical Compound 205



Chemical Compound 206

Chemical Compound 207

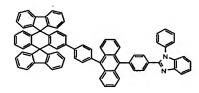
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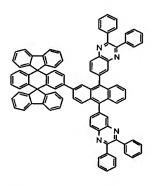
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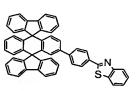
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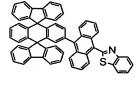
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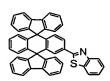




Chemical Compound 212

Chemical Compound 213





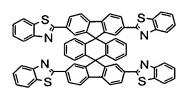
Chemical Compound 214

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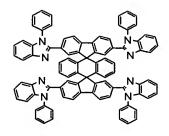
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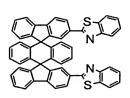
Docket No.: 29137.029.00



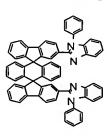
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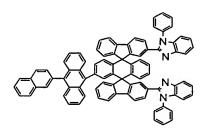
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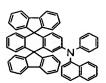
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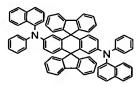


Chemical Compound 222



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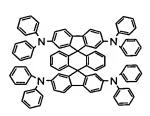
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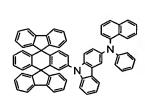
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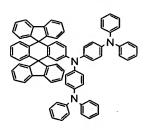
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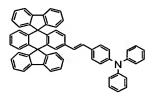
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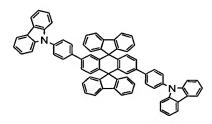
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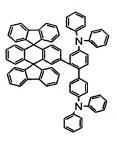
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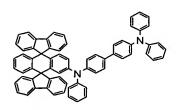
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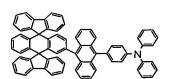
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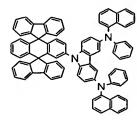
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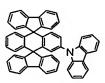
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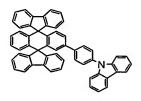
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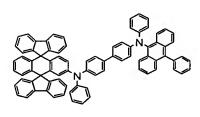
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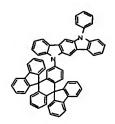
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Chemical Compound 406



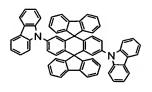
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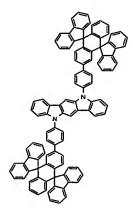
Chemical Compound 410



Chemical Compound 405



Chemical Compound 407

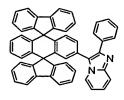


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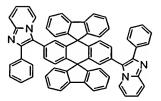


Chemical Compound 411

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Chemical compound 412



Chemical Compound 413.

- (Original) The chemical compound of Claim I, wherein the compound has a melting 11. point above about 300°C.
- 12. (Original) The chemical compound of Claim 1, wherein the compound has a band-gap corresponding to visible light emission.
- 13. (Original) The chemical compound of Claim 12, wherein the band-gap for the visible light emission is from about 1.8 eV to about 3.5 eV.
- 14. (Original) The chemical compound of Claim 12, wherein the band-gap corresponds to blue, green or red light emission.
- 15. (Original) The chemical compound of Claim 1, wherein the compound has a holetransporting property.
- 16. (Original) The chemical compound of Claim 1, wherein hole mobility in the compound is about 1x10⁻⁷ cm²/Vs or greater.
- 17. (Original) The chemical compound of Claim 1, wherein the compound has an electrontransporting property.
- 18. (Original) The chemical compound of Claim 1, wherein electron mobility in the compound is about 1x10⁻⁷ cm²/Vs or greater.

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19. (Original) The chemical compound of Claim 1, wherein the compound has a hole-

injecting property.

20. (Original) The chemical compound of Claim 1, wherein the compound has the highest

occupied molecular orbital (HOMO) level from about -4.0 eV to about -6.0 eV.

21. (Original) The chemical compound of Claim 1, wherein the compound has an electron-

injecting property.

22. (Original) The chemical compound of Claim 1, wherein the compound has the lowest

unoccupied molecular orbital (LUMO) level from about -2.5 eV to about -4.0 eV.

23-88. (Canceled)